

研究论文

气候变化对我国小麦产量的影响

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摘要 本研究采用英国Hadley中心的区域气候情景PRECIS (Providing Regional Climate for Impacts Study), 结合校正的CERES-Wheat 模型, 对21世纪70年代(2070s)气候变化情景下我国小麦的产量变化进行了研究。结果表明, 在PRECIS预测的2070s气候变化条件下, 我国雨养小麦和灌溉小麦的平均单产较基准年(1961—1990平均值)约减少20%, 其中雨养小麦的减产幅度略高于灌溉小麦, 春小麦或春性较强的冬小麦减产明显, 减产的区域主要集中在东北春麦区和西南冬麦区。

关键词 [小麦](#) [气候变化](#) [影响](#)

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Impacts of Climate Change on Wheat Yield in China

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Abstract Wheat (*Triticum aestivum* L.) is the second most important grain crop in China. Understanding the relationship between climate change and wheat yields will not only help to optimize agricultural practices, but also benefit to adapt climate change. The regional climate mode PRECIS (Providing Regional Climate for Impacts Study) and CERES-wheat model were used to simulate wheat yield change under future climate change scenarios. The preliminary results indicated that both the yields of rain-fed and irrigated wheat would be decreased in 2070s by about 20% with climate change. The yields of rain-fed wheat loss more than irrigated wheat, and spring wheat or spring-habit winter wheat would be decreased more than winter wheat and winter-habit wheat with climate change in 2070s. The areas that yield decreased remarkable are located in Northeast China where plants with spring wheat and Southwest China with winter wheat.

Key words [Wheat](#) [Climate change](#) [Impacts](#)

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